

member slides on the tapered surface. During the course of the sliding of the engaging/holding member, it gradually holds the card on the card table. Because of this structure, the card must be moved by use of a take-in roller or the like until the card is firmly held, so as not to shift a position of the card relative to the moving card table from its correct position. Actually, it is very difficult to make a moving speed of the card table to be equal exactly to a feeding speed of the roller. Where a difference between those speeds becomes large, the taken-in roller will be scraped or ground, and the card will come off.

Page 5, paragraph 2:



Since the shutter plate 5103 is turned about the support shaft 5102, a necessary stroke quantity is secured at a location near the support shaft 5102 of the shutter plate 5103, it is necessary to increase a stroke quantity at a location apart from the support shaft 5102.

Therefore, a large solenoid must be used for the solenoid 5104. When a user quickly inserts a card into the card reader, the card sometimes hits the shutter plate 5103. In order to reliably open the shutter plate 5103 when the card hits the shutter plate 5103 at a location apart from the support shaft 5102, it is necessary to increase the output of the solenoid 5104. This necessitates a large solenoid 5104.

Page 32, paragraph 2:



The operation of the card discharging mechanism thus far described is that when the mechanism is normal. There is a case where when the card is greatly deformed or soiled, the



card is transported not normally. After the card has been into the card entrance, it is impossible to take out the inserted card. In this case, the card is forcibly discharged. The description to follow is elaboration of an operation of the card transporting mechanism for forcibly discharging the card. When a greatly deformed or soiled card or a card of which the normal transportation is impossible is inserted through the card entrance 230, such a card stays in the card transporting path inside the card entrance. The magnetic head 240 located near the card entrance 230 detects the incoming card, but the sensor located within the card sensor located in the card reader cannot detect the card until it reaches a card sensor position. To cope with a case that the magnetic head 240 located near the card entrance 230 detects a card, but another sensor does not detect the card after a predetermined time elapses after the card insertion, or that another sensor (not shown) outputs a signal and its outputting state continues for a predetermined time, it is judged that the card stays at the card entrance, and an abnormal detecting signal indicative of the staying card is output.

Page 35, paragraph 3:



In the embodiment shown in Figs. 14 to 16, the carriage 270 is moved to the inner part of the card reader, and its moving direction is reversed to move the card toward the card entrance, whereby a card staying on the card transporting path is forcibly discharged by the engaging pieces 254 and 255 of the pawl member 243 for card transportation.

Page 55, paragraph 2:

The card 501 is inserted through a card entrance 516. The pre-heated 515 detects the insertion of the card entrance 516, and the solenoid 503 is turned on. The solenoid 503 pulls the spring pin 510 while resisting a spring force of a return spring 517, to cause the slide lever 505 to slide in a direction of an arrow A in Fig. 28. Accordingly, the shaft 521 fixed to the slide lever 505 moves within the inverse L shaped hole 506a, hits the contact portion 513 to move it forward, and turns the swing arms 506 in a direction of an arrow B. As a result, the shutter plate 502 is lifted and moved to the opening position, the card entrance 516 (card transporting path 519) is opened as indicated by a two-dot chain line in Fig. 28. At this time, the swing arms 506 likewise raise both ends of the shutter plate 502, so that the opening/closing side end face 502a

of the shutter plate 502 moves substantially parallel to the card transporting path 519.

IN THE CLAIMS:

Please add the following claim 25:

25. (New) The shutter opening/closing mechanism according to claim 21, further comprising a card trap member detection mechanism, wherein said mechanism includes a detecting part connected to said drive source, and a microswitch connected to said detecting part, wherein said shutter plate is prevented from moving into said closing position when a card trap member is detected, thereby prevening said microswitch turning on.

